



# Armour Tech News



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## ANNUAL FRESHMAN SMOKER SET FOR NEXT FRIDAY EVE

Schommer and Amsbury Featured on Program

AT W. S. E. HALL

Plans for the freshman smoker which have for several weeks been going through a period of development are soon to attain realization. This event is to take place next Friday night at 8:00 at the W. S. E. hall, located on the twelfth floor of the Engineering Building at 205 West Wacker Drive.

Since this is their first social event of the year, the frosh are striving hard to make it a big success. In order to achieve this and make the evening a highly successful and enjoyable one various forms of entertainment have been provided.

Professors Schommer and Amsbury, well known members of the faculty, have assured social chairman L. A. Callen of their presence as speakers on Friday night.

### Orchestra to Play

A fifteen piece orchestra recently formed among freshman students, is to play on the occasion, offering popular song hits of the day. Its members are: T. Cherwin, J. Cramer, B. Peterson, C. Cunningham, J. Tamney, N. Krause, N. Colburn, C. Wilson, C. Johnson, D. Traver, R. Ekroth, J. Rodighier, T. Reavy, B. Hemmick, and W. Gunderson.

### Tickets On Sale

Chairman Callen urges every freshman who possibly can to attend this event. Tickets are now on sale for a quarter, which will be amply repaid in the way of real enjoyment. Refreshments will also be served.

## Will Make Attempt To Split Atom Soon

Artificial lightning of 15,000,000 volts will be unleashed in the center of Berlin in March.

The artificial bolt will be used in an attempt to split the atom. It is believed to be one of the most dangerous experiments ever undertaken by man. The voltage has been heretofore unequalled.

One grain of water or any other matter contains energy which the experiments have calculated to be worth \$125,000.

Dr. Brach, a member of the Institute of Berlin, said radium rays will be produced at greater strength. This is a disturbing feature for Gamma rays, with the old apparatus, will kill a man at a distance of 200 meters.

## Zielinske To Address Engineers Society

Mr. W. F. Zielinske, in his talk to be delivered this Friday, March 13, to the members of the Armour branch of the Fire Protection Engineering Society, will speak about spectacular oil fires. In addition, he will also discuss the properties of oil, the distillation process and the precautions against hazards. As a speaker, Mr. W. F. Zielinske is considered by the society to be one of the best. He is an engineer for the Marsh & McLennan Insurance Co., formerly was in the Marines and has taught school in Cuba.

### SALAMANDER PLEDGES

Salamander, honorary Fire Protection Engineering fraternity pledged two juniors.  
E. A. Scanlan, '32.  
G. W. Schodde, '32.  
at the noon meeting held on Friday, February 27, in their Chapin Hall Rooms.

## Seniors Try For Government Jobs

Over thirty seniors and one member of the faculty took the Civil Service examinations given by the Federal government on Wednesday and Thursday, February 25th and 26th in the Federal Building downtown.

The examinations were conducted in three sections. The first section was from 9:30 to 1:00 covering optional questions. These questions covered general engineering topics. The second section of the examinations was devoted to optional questions on structural engineering. Twelve civils and one mechanical tried their hands at this examination. Thursday morning from 9:30 to 1:00 was devoted to the examination on Aeronautics which was taken by Professor Jacobson.

There were over a hundred men taking these examinations. Of the thirty Armour men taking them there were twenty civils, four electricals, three chemicals, and two mechanicals in addition to Professor Jacobson who represented the faculty. The fact that no questions were asked on theoretical subjects such as Physics, Calculus, and so forth, was a good indication that the government was making the examination easy so as to hire a larger number of men than usual. Except in the case of the Aeronautics examination, all of the questions asked seemed comparatively easy.

## Varied Program At A. I. Ch. E. Meeting

A meeting of the Armour Branch of the A. I. Ch. E. was held in the Physics Lecture Room last Friday morning. F. B. Atwood, the president, opened the meeting with an apology for the absence of the speaker, who had been unavoidably detained.

Professor McCormack then filled in the breach by telling of a meeting of the American Safety Council that he attended last Thursday. The experiences that were spoken of during this meeting caused Professor McCormack to reminisce about some accidents that had happened to some of his own experiments.

### Accidents Liable

The laboratories of industrial plants, according to Professor McCormack, are much more rigid in respect to the wearing of goggles, rubber aprons, and leggings, than the college laboratories. But the industrial laboratories are doing work that is less certain than the schools and is therefore inherently more liable to cause an accident.

After a few experiences had been related, the speaker, Dr. Farringer, arrived quite breathless. Of course the lateness of the hour prevented the deliverance of the well planned speech that he had prepared, but in spite of all difficulties the speaker delivered an interesting informal talk on oils. At the close of the hour the seniors asked some questions which were cut short by the bell.

## Eight Men in Class On Airplane Engines

Only eight men are enrolled in Professor Perry's and Roesch's class in airplane engines. The reason seems to be the extreme difficulty of passing the Navy's physical examination. A number of men are now taking this test at the Great Lakes station.

The course includes work on Liberty, Gnome, Wright-Whirlwind, Packard and other airplane engines. The hesitation of the men to enroll in this class is not due to the quality of the course, but because of the serious obstacle presented by the rigid requirements of the government.

## TALKIES LECTURE DRAWS CROWD TO A. I. E. E. MEETING

Mr. H. Merrill Smith of Electrical Research Products, Inc., the Sound Projection division of the Western Electric Company, gave an address on "Talking Motion Pictures" last Friday at the regular meeting of the A. I. E. E.

Mr. Smith first gave a detailed discussion of the method of recording the sound on the film. He traced the operations from the studio, through the "mixing panel" to the main amplifier, and through the bridge amplifiers and light valve to the film.

### Explains Recording Methods

The method in which the electrical impulses are sent through the light valve and recorded on the two most prevalent types of films, the varying area and varying density, was explained. The pictures and sound are taken on separate films, and after they have both been developed they are transferred to one film, the sound being on one side, on a strip about a tenth of an inch wide.

### Projection Described

The scene was then changed to the theater, where the reproduction of the sound was discussed. A light, focused to a fine line, is interrupted by the markings of the sound track on the film and then falls on the photo-electric cell, which changes the light impulses into electric impulses. These audio frequency impulses are then amplified about ninety million times by a series of high-gain amplifiers.

Several dynamic speaker units with huge air column horns are used to transform the feeble electric impulses into the crashing torrents of sound which may be heard perfectly throughout the largest theater. The speakers are elevated to two-thirds of the height of the screen in order that the sound may appear to be coming from the actor's mouths.

## Show Firebrick Film At A.S.M.E. Meeting

An important cog in the machine of iron and steel production and one of the factors which makes the manufacture of modern heat tempered alloys possible was seen on a film shown before the A. S. M. E. last Friday morning. This refers, to the modern firebrick, the result of years spent in the mixing and tempering of clays, which make up a firebrick that can resist the enormous temperatures developed in smelting furnaces and hearths.

### Shows Detail

The process of manufacture was shown in considerable detail and covered the whole business from claypit to storage warehouse through several different types of firebrick, these being made in many shapes and varieties to conform to the contour of the shell in the many styles of furnaces which are used by the industries.

Complete views of the kilns were shown in cross section with the circulation of the hot air indicated by arrows which made the function of the whole system very easy to follow.

In the first third of the tunnel kiln there is the pre-heating zone in which the brick is gradually brought up to a temperature somewhat below that of the next zone, the burning zone. In that zone the temperature is about the same from one end to the other and here the brick undergoes most of the physical and chemical changes which are its character when it leaves the oven. However, that is getting ahead of the story since exposure to the air with a subsequent sudden cooling would destroy the brick and in order to prevent this, the bricks pass through the last, or cooling kiln in which they drop to practically ambient temperature.

The film was shown through the courtesy of the Harbison Walker Company of Pennsylvania.

## Glee Club Asked To Tour Europe

John Walker, president of the Glee Club, has received a communication from the University of Michigan Glee Club that should be of much interest to every member of the club. This ambitious glee club, of U. of M., is now at work on a European tour for next summer and invites the ARMOUR Glee Club to come along.

### Called "Golden Days"

"Golden Days" has been chosen as a name for the tour which will sail from New York, July third, aboard the S.S. Republic of the United States Lines. Nearly five weeks will be spent in Europe visiting places famous in history and literature: London (2 days), Windsor, the Shakespeare country; The Hague, Amsterdam, The Isle of Marken, Cologne, up the Rhine to Wiesbaden, Heidelberg, The Black Forest, Lucerne, The Grand Alpine Motor Tour to Interlaken, Montreux and the Castle of Chillon, by the Simplon Tunnel to Milan, Venice, Florence, Rome (2 days), Genoa, along the Riviera to Nice, Monte Carlo, Paris (4 days), Versailles, Cherbourg. The tour will end at New York on August 24th.

The group plans to rehearse on board ship on the way over. Two or three thousand dollars are expected as proceeds from European concerts and this is to be divided equally among the members to help defray the cost of the trip which is \$585. All those interested should see John Walker of the Glee Club.

## Fire Protects Inspect Oil Refining Process

Last Thursday the Junior Fire Protects went on an inspection trip to the Refinery of the Standard Oil Company of Indiana at Whiting, Indiana. The plant at Whiting covers over fourteen hundred acres and is evaluated at more than one hundred million dollars.

When the group arrived at the plant, they went directly to the main office where they were provided with a junior Engineer, who acted as a guide. They started the long trip by watching the crude oil coming in from pipe lines that originate in Texas and Oklahoma. From the control room, where crude oil enters the plant, the fire protectors started their climb over steps and across fields by going to the room where wax was being removed from the crude oil. It was noted that the Fuller's Earth, that was being used here in a filter press, could be renewed by heating so as to be used ten or eleven times. The wax is removed by crystallizing it out of the oil at a low temperature.

The men then followed the wax from the press to the candle de-

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## Rifle Club Certain To Win State Meet

Almost certain of winning the Illinois state rifle championship the Armour squad is now in the last week of the six weeks of competition. At present the squad is 221 points ahead of the second place team, the Slifer Legion Post aggregation. The McHenry (Ill.) club dropped to third place last week after holding second place for four weeks of the meet.

In the individual standings S. J. Patla, C. E. '33, is leading by 25 points. Last week the Tech squad met and defeated a team composed of the best shots of the other nine clubs in the Tribune meet. Morgan Park Military Academy was also a victim of the Armour marksmen during the past week, losing to our men by 58 points.

## Welded Joints Used In Steel Building

"Welding in The Carnegie Steel Building," was the title of the illustrated lecture, presented at a meeting of the W. S. E. by Professor Heald of the Civil Engineering Department.

The lecture, which depicted the construction of the first all "welded," steel frame building, was delivered at 10:30 last Friday, in room B, Mission, to an audience of about fifty civils.

The speaker in opening his address, gave a brief summary of the development of electric arc and gas welding connection with steel structures. He told of how, in 1930, a building of skyscraper design was constructed with gas and electric welding as the only medium of joining the various members of its frame.

### Located in Cleveland

This structure, known as the Carnegie Building, was erected at Cleveland, Ohio, by the Carnegie Steel Co. The building is four stories in height and covers a ground space of sixty by one hundred and twenty feet.

Moving pictures served as positive proof of the Professor's assertion that aside from the greater safety factor to the workers, the main virtue of construction by welding was its lack of noise, for no matter how fiercely the electric arcs glowed, throughout the entire picture not a sound or snap could be heard.

## Inter-Honorary Men Plan Dance On May 1

Most of the school intellectuals will be present at the Inter-Honorary Dance to be held on May first. Richard Eddy and Fred Attwood, members of the committee say that this date is definite although the place and the entertainment have not been decided on yet. The following organizations are participating to make this event a success:

Chi Epsilon  
Eta Kappa Nu  
Honor "A"  
Phi Lambda Upsilon  
Pi Nu Epsilon  
Pi Tau Sigma  
Salamander  
Sphinx.  
Tau Beta Pi

## Outdoor Cycle Photos Will Be Taken Soon

Last Friday, March 6, the first Cycle pictures were taken in the gymnasium and in the Assembly Hall.

In about three weeks, A. H. Jens, editor-in-chief of the 1931 Cycle, will arrange a schedule for the taking of the outdoor pictures. A platform will be erected at one end of Ogden Field, and photographs of each class will be taken separately. For this purpose, each class will be divided at random into four sections, and pictures will be taken of each group.

## FOUR CANDIDATES FOR POSITION OF JUNIOR MARSHAL

Need Thirty Signatures to Place Name on Ballot

### ELECTION THIS WEEK

The campaign for the election of Junior Marshal started last week with the circulation of petitions for nomination. J. B. Dirckers, F. P. E.; H. P. Richter, C. E.; R. F. Waindle, M. E., and H. W. Yount, F. P. E., are the men who at press time had almost the required thirty signatures for nomination. There are 168 members in the junior class. Duplicate signatures will be stricken from all petitions on which they appear. The election for Junior Marshal will probably be held this Thursday, though this is not definite.

### Direct Junior Week

The Junior Marshal and the four assistant marshals who are appointed by him have direct control of the Junior Week activities. Plans for the annual Class Rush; setting of dates for the Interfraternity track meets and games; and arrangements for Open House Night are some of the many duties of these men. Junior Week is probably the most important college event of the year and the success depends greatly on the ingenuity of the marshal and his assistants.

Setting of the date for Junior Week automatically sets the date for the Junior Formal as the following Friday.

### Overseer Class Rush

The freshman-sophomore class rush, the annual battle for class supremacy which takes place during this memorable week is overseen by the marshals in their resplendent jackets. Reports have it that the competition in the Interfraternity Pageant will be unusually stiff this year.

## Motion Pictures On Steam To Be Viewed

An opportunity to view several reels of motion pictures, entitled "Steam," will be afforded members of the A. S. M. E. next Friday, March 13.

Animated drawings will be used to explain the passage of water, steam, and gases through many standard types of steam power installations. These are to be presented first in order that the actual views of the various units, which will follow later, may be better understood.

Pictures of modern boilers, the latest superheaters and economizers, and many similar items of equipment will show these components both in operation and under construction.

The Babcock and Wilcox Co. have arranged these films.

## Change Call Letters Of Tech Radio Station

Through the efforts of Professor Wilcox and the officers of the Armour Radio Association, the call letters of the Armour Amateur Station were changed from W9NV to W9YW by the Federal Radio Commission.

The letter Y designates that the station is being operated by a school or college. The 9 indicates that it is located in the Ninth Federal radio district and the W is the international prefix carried by all amateur stations in the United States.

The members of the A. R. A. will hold their bi-monthly meeting Friday in the Electrical Lecture room on the second floor of the main building at 10:30 o'clock. All men interested are cordially invited to attend.

### Calendar

Tuesday, March 10  
5:00 P. M.—Orchestra Rehearsal.  
7:30 P. M.—Track Meet—Armour vs. Sears Roebuck Y. M. C. A. at Bartlett Gym.  
7:30 P. M.—Swimming Meet—Loyola vs. Armour at University of Chicago.  
Wednesday, March 11  
5:00 P. M.—Freshman Orchestra Practice.  
Thursday, March 12  
5:00 P. M.—Glee Club Rehearsal.  
Friday, March 13  
10:30 A. M.—A. R. A. Meeting, Electrical Lecture Room.  
5:00 P. M.—Freshmen Orchestra Practice.  
Saturday, March 14  
Track—Armour's Relay Teams at 14th Annual Illinois Relays, Champaign, Illinois.  
3:00 P. M.—Swimming—Illinois Wesleyan College vs. Armour at University of Chicago.